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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,567	01/23/2001	Harold R. Blomquist	TRW(VSSIM)4820	2445

26294 7590 07/01/2003

TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.
526 SUPERIOR AVENUE, SUITE 1111
CLEVEVLAND, OH 44114

EXAMINER

MILLER, EDWARD A

ART UNIT PAPER NUMBER

3641

DATE MAILED: 07/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/767,567

Applicant(s)

BLOMQUIST, HAROLD R

Examiner

Edward A. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-9, 11, 12 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-9, 11, 12, 15, 16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 3, 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on June 03, 2003 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-2, 4, 6-9, 11-12, 15, 16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mehrotra et al., in view of Rogers et al., and Poole et al. '272.

Mehrotra et al. teaches preparing a solution of AN and phase stabilizer in water, forming a precipitate therefrom and drying such, and then grinding to form powder form. Further, although the method primarily used is drying at moderate temperature, as at col. 3, lines 1-6, Mehrotra et al. at col. 4, lines 15 clearly suggests freeze drying instead. However, details of the freeze drying process are not described in Mehrotra et al. Rogers et al. show a freeze drying process as applied to oxidizer salts such as ammonium perchlorate (col. 1, lines 10-11, 23-26, 39-41). Rogers et al. teach the conventional use of surfactants and solution processing prior to freeze drying to form the particulate oxidizer. The surfactant, col. 2, lines 19-24, 29-34 and 38-46, serves to limit crystal growth, which is desirable in the art to form small particle size. The freeze drying process, col. 2, lines 47-60, results in a porous friable mass of particles which may be further broken up or disintegrated, col. 3, lines 5-

7. Although a drum is not taught in Rogers et al., use of any of a variety of notoriously well known apparatus means, including rotating drums, on which the coolant for freezing the solution may be flowed, would have been obvious. While applicant urges that the drum for freezing is not shown, the broad "comprising" scope claims are not deemed to define over the use of a drum surface with

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flowing Freon™ coolant over such drum, within the broad scope of the claims and within the ambit of Rogers et al., as at col. 5, lines 5-15, the weir being merely a solid surface upon which the coolant (lines 23-24) flows. If the particle size is too large, further disintegrating or grinding would have been obvious.

In view of Poole et al. '272, for example at col. 4, lines 56-67 and col. 5, lines 45-53, it would have been obvious to substitute potassium nitrate for the potassium fluoride phase stabilizing salt, and in the usual phase stabilizing amounts. Variation of these notoriously well known ingredients and steps in the prior art process of freeze drying to produce PSAN powder would have been obvious to one of ordinary skill in the art. It is well settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Applicants' argument about the amount of surfactant is not persuasive as follows. While, as argued, Rodgers et al. does teach in col. 3, lines 20-27, an "amount of say 0.5 to 5%", (emphasis added) this is followed by the teaching that this is to obtain a specific small particle size.

Immediately thereafter in lines 26-27, omission of the surfactant is contemplated, with only a larger particle size being obtained. Thus, the amount is not a taught minimum, as argued by applicants, in view of the "say" which is similar to "generally", and in view of the teaching that it may be omitted entirely. Thus, the amount of surfactant is clearly a result effective variable that one of ordinary skill in the art may vary as suits the individual desire of the ordinary artisan. There do not appear to be any specified variable that is unexpectedly claimed by that specific amount, or any other result not expected by the prior art.

4. However, the specific PVP surfactant claimed in claims 3 and 17 is not deemed to be reasonably suggested in the process as claimed. Therefore, claims 3 and 17 remain objected to as

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being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached Monday-Thursday, from 10 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198. The Group fax number is (703) 305-7687.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
June 29, 2003



EDWARD A. MILLER
PRIMARY EXAMINER